



MODEL #2304A EXTRA-HEAVY-DUTY ON/OFF

Battery Switch

EASY INSTALLATION

Guest® Extra-Heavy Duty On/Off Switch is a single pole, single-throw switch with alternator field circuit disconnect for use where high amperage is required, such as diesel engine starting. Rated at 600 amps continuous, 1000 amps momentary, the switch is 5 1/2" square and 3 1/2" high.

Warning: It is important that cold start amperage requirements of your engine do not exceed the rated capacity of this switch.

The switch features:

1. Alternator field disconnect, which interrupts the alternator field when switch is turned to "off" position, thus preventing electric surges in the armature circuit which might burn out the alternator diodes.
2. Positive click stop in all positions, with large easy-to-read dial.
3. Rugged polycarbonate case with built-in skirt to protect electrical connections. Can be panel or flush mounted.
4. Heavy-duty copper contacts.
5. For use with 6, 12, 24, and 32 volt systems.

Installation Instructions

Mounting

Switch should be located as close to the batteries as possible with regards to convenience of operation. The battery and starter cable should be as short as possible.

There are three mounting positions:

1. Surface mounting with the wires going through the openings at the base of the switch.
2. Surface mounted with a hole in the mounting surface to permit wires to come through at the back of the switch.
3. Recessed mounting of the switch through a hole in the mounting surface.

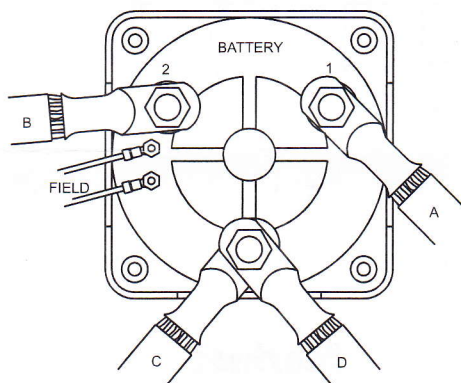
For surface mounting, place the switch in the desired location and, using the switch as a template, locate the four mounting holes. Then drill four equally-spaced #12 holes on 4 3/8" centers.

For recessed mounting, place the switch in the desired location, and using the switch as a template, locate the center. Cut a hole 5 1/4" dia. to permit the silver face plate to extend through the mounting surface. Then put the switch through the hole from the back and locate and drill the four #12 mounting holes. These holes should be on 4 3/8" centers. If flush mounting is desired, washers may be used on the mounting bolts between the switch flange and the mounting surface to adjust the portion of the switch that comes through the hole.

Wiring

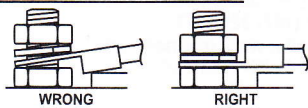
1. The battery switch is designed to accept up to 4/0 cable. The battery cable should be sized in accordance with the engine manufacturer's recommendations. Other guides to wire sizes may be obtained from The American Boat and Yacht Council's Electrical Standards E11. Terminal lugs should be sized to accommodate the size of the wire and the terminal bolts. The brass terminal bolts of the battery switch are 1/2" in diameter.
2. Wire for alternator field circuit disconnect switch should be #14 with terminal lugs on the ends.
(See wiring diagrams for suggested installations).

Recommended Mounting of Cables at Switch



1. Connect cable (A) from positive post of battery #1 to switch terminal #1.
2. Connect cable (B) from positive post of battery #2 to switch terminal #2.
3. Connect cable (C) from starter solenoid and cable (D) from accessory (load) to Feeder terminal on switch.
4. See "Wiring" for cable and terminal requirements.

CABLE LUG INSTALLATION



Remove Top Nut and Washer Only

Removing Bottom Nut Will Damage The Switch
Tighten nut to 150 in-lbs.

SUGGESTED WIRING DIAGRAM FOR ALTERNATOR FIELD DISCONNECT CIRCUIT

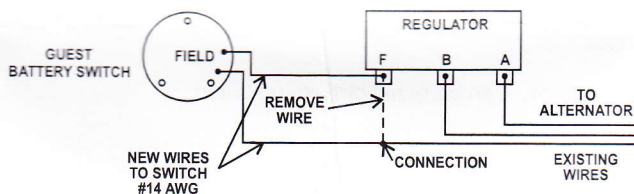
Alternators with EXTERNAL REGULATOR:

Remove regulator field wire (regulator "F" terminal) and connect to new wire leading to Guest® battery switch field terminal (either terminal). Add another wire from other switch field terminal and connect to regulator "F" terminal. Use #14 wire for new circuit. Carefully tape connections for proper insulation.

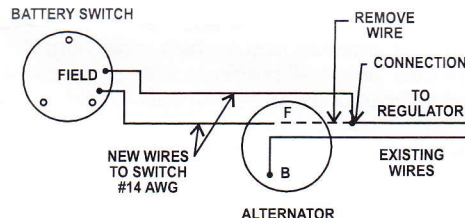
OR

If it is easier to reach the alternator, remove alternator field wire (alternator "F" terminal) and connect to new wire leading to Guest® battery switch field terminal (either terminal). Add another wire from other switch terminal and install to alternator "F" terminal. Use #14 wire for new circuit. Carefully tape connections for proper insulation.

WIRING CHANGE AT REGULATOR



OR
WIRING CHANGE AT ALTERNATOR

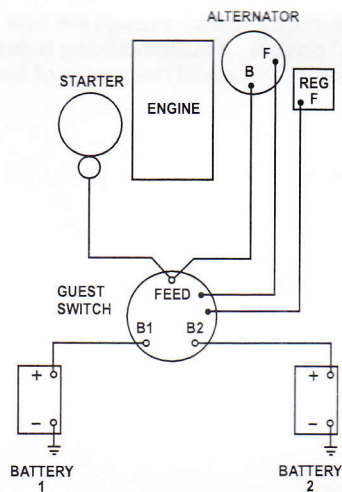


Alternators with INTERNAL REGULATOR:

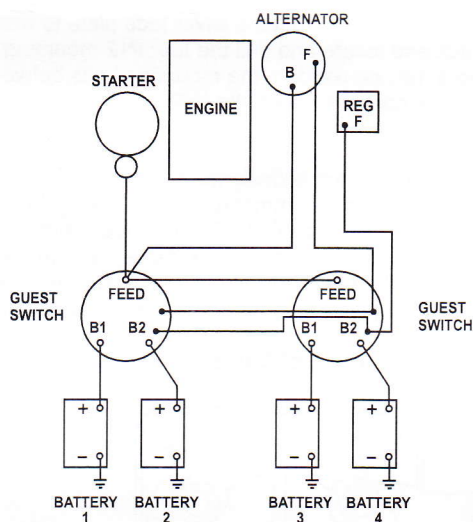
The field circuit wire on alternators with internal regulators is located within the alternator housing and it is impractical to use the field disconnect feature. Protection of the alternator diodes can be achieved by installing a Guest® Isolator #2401A (for 70 ampere alternators) or other appropriate model.

See below for various wiring diagram for alternators with internal regulator:

1-ALTERNATOR 1-BANK (2-BATTERIES)
1-ON/OFF SWITCH



1-ALTERNATOR 2-BANKS (4- BATTERIES)
2-ON/OFF SWITCHES



The On/Off function of the #2304A switch will not be affected if the field circuit disconnect feature is not used.

Caution: This product is designed for use under normal conditions. If switch is used to open circuit during starter malfunction, the SWITCH SHOULD BE REPLACED to avoid possible future failure.

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